

Serial No. 09/745,873

Docket No. P-0136

Amdt. dated January 3, 2005Reply to Office Action of October 18, 2004**REMARKS/ARGUMENTS**

Favorable reconsideration in of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-22 and 24-32 are pending in the present application. Claim 23 has been canceled, claims 1, 3, 4, 8, 11, 16, 17, 19, 20 and 25 have been amended and claims 28-32 have been added by the present amendment.

In the outstanding Office Action, claims 17, 18, 25 and 26 were rejected under 35 U.S.C. § 102(b) as anticipated by Applicant's Admitted Prior Art (AAPA); claims 1-6, 8-14, 16, 19-24 and 27 were rejected under 35 U.S.C. § 103(a) as unpatentable over AAPA in view of Benveniste; and claims 7 and 15 were rejected under 35 U.S.C. § 103(a) as unpatentable over AAPA in view of Benveniste and Tiedemann, Jr.

Independent claim 20 has been amended to recite that the method allocating channels in a CDMA packet data system includes receiving channel availability information for all channels from a base station, and has also been amended to include the subject matter recited in dependent claim 23. In particular, dependent claim 23 recites that a plurality of terminals are configured to simultaneously monitor channel availability information for all of the channels of the base station and transmit data on the first available channel detected. Independent claims 1, 8, 11, 17 and 25 include similar amendments in a varying scope. For example, amended independent claim 1 is directed to a method for allocating channels in a

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CDMA packet data system including providing channel availability information for all channels from a base station to each of a plurality of terminals, and dynamically allocating available channels to corresponding ones of the plurality of terminals to allow transmission of packet data according to an available or unavailable state of each channel. Further, amended independent claims 1 also recites that dynamically allocating the available channel includes simultaneously monitoring, by each mobile terminal, all of the channels in parallel to detect whether the state signal indicating channel availability indicates a channel is idle.

Thus, according to the present invention, the channel availability information for all channels from a base station are provided to each of a plurality of terminals. Further, the plurality of terminals monitor channel availability information for all of the channels of the base station.

As discussed in the Background of the Related Art, and as shown in Figures 1 and 2, the related art CDMA packet data system includes a base station 20 and a plurality of terminals 1-N. The plurality of terminals 1-N are typically grouped in as many groups that there are channels used in one base station 20. Channels in the CDMA system are distinguished by unique PN codes. For example, if a system has six terminals 1-6 (i.e., N is 6) and three channels in one base station 20, this base station 20 classifies the 6 terminals into 3 groups. Each group uses one channel (see page 1, lines 13-19). The terminals grouped in one channel do not use channels allocated in another group. For example, with respect to

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channel A as shown in Figure 2, terminal 1 detects whether or not channel A is in the idle state is step ST1. Terminal 1 does not check or monitor whether channels B or C are idle. If it is determined that channel A is idle, terminal 1 transmits packet data through channel A, as shown in step ST2 (see page 3, lines 1-3). However, when the allocated channel is not idle, the terminal 1 awaits for a channel in group 1 to become available. That is, when channel A is busy and channel B is idle, the terminal allocated to channel A cannot use channel B (see page 4, lines 12-13).

Thus, in the related art, the channel availability information is not provided for all channels from a base station. Rather, as shown in Figure 3, terminal 1 only receives channel information regarding channel A, terminal 4 only includes information regarding channel B and terminals 5 and 6 only receive channel information regarding channel C. Terminals 5 and 6 do not receive information concerning the other channels A and B. Similarly, terminal 4 does not receive channel information concerning channels A and channel C. Thus, in the related art, the channel information for all channels is not provided to each of the mobile terminals.

In addition, Benveniste is directed to using channels from another cell if all of the channels in one cell are busy. The base station in Benveniste reallocates a channel from another cell to a current cell when a channel in the current cell is fully utilized. The mobile terminals in cell A do not monitor the channels in cell B. For example, with reference to

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Figure 1, Benveniste teaches using idle channels from the cell C for the cell A when a mobile terminal in the cell A tries to make a call and all of the channels are busy. All of the mobile terminals in cell A are not configured to simultaneously monitor channel availability information for all channels of the base station and there is no disclosure in Benveniste about monitoring channel availability information for all channels from a base station to each mobile terminal.

Further, regarding the subject matter recited in dependent claim 23, the Office Action indicates that Figure 3 of Benveniste suggest that monitoring of the channels is done simultaneously, because the other terminals in a group must be aware of the availability of their channel, and therefore each channel must be monitored continuously so that terminals don't communication at the same time. However, as noted above, the terminals in cell A in Benveniste do not monitor channel availability information for all of the channels.

This is evidence because a mobile terminal in cell A first initiates a call to a base station and then if a channel is not available, the base station borrows a free channel from another cell. The mobile terminal in cell A that requested the service is then reconfigured to use a channel that has been reallocated from the other cell. This terminal that has been reconfigured to use the new channel does not monitor channel available information for all of the channels, but rather is passively instructed to use a specific channel designated by the channel allocation scheme in Benveniste. In addition, in Benveniste, the channel available

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information is not provided for all channels from a base station to each of a plurality of terminals. Rather, as discussed above, the terminals in Benveniste are similar to the terminals discussed in the background art in which the terminals are instructed to use a specific channel and then that terminal monitors only that specific channel. Tiedemann, Jr. also does not teach or suggest the claimed invention.

Accordingly, in light of the above comments, it is respectfully submitted independent claims 1, 8, 17, 20 and 25 and each of the claims depending therefrom are allowable and the rejections noted in the Office Action have been overcome.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, David A. Bilodeau, at the telephone number listed below.

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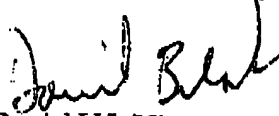
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To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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